

REMARKS

Claim 31 is amended and claim 38 is added herein. Claims 3-6, 8, 10-13, 15, 16, 18-20, 22, 23, and 27-38 will be pending upon entry of this amendment.

The following remarks are responsive to the final Office action dated September 11, 2006 and the Advisory Action dated November 20, 2006.

Applicants acknowledge the allowance of claim 35 and the allowability of claims 18-20.

Response to Rejection of ClaimsClaim 31

Amended claim 31 is directed to an absorbent article for absorbing body fluids comprising an absorbent core being at least partially made of fibers and constructed and arranged for receiving and holding such fluids and including a reinforcing scrim member intimately associated with the absorbent core to maintain its structural integrity in use, said scrim member comprising a network of machine direction (MD) strands extending in a machine direction, and cross direction (CD) strands extending in a cross direction, at least some of said MD strands and CD strands crossing over each other and being interconnected, the MD strands and the CD strands cooperatively defining a plurality of openings in the scrim member, said MD strands being selected and formed to provide a predetermined stiffness and strength in supporting said absorbent core in the machine direction, and said CD strands being selected and formed with at least one characteristic difference from said MD strands to provide a stiffness of the absorbent core in the cross direction that is less than said stiffness of the absorbent core in the machine direction, wherein the MD strands are elongate and are spaced according to a first spacing frequency, and at

least some of said CD strands have as a characteristic difference a second spacing frequency different from the first spacing frequency of the MD strands, the second spacing frequency of the CD strands being varied in different zones of the elongate MD strands to provide a variance in stiffness between such zones, the scrim member being attached to the absorbent core through entanglement of fibers with each other where entangled fibers pass through said scrim member openings.

Amended claim 31 is submitted to be nonobvious and patentable over the references of record, and in particular U.S. Patent No. 6,093,663 (Ouellette et al.) in view of U.S. Patent Application Publication No. 2002/0009940 (May et al.), in that whether considered alone or in combination, the references fail to show or suggest an absorbent article including a scrim member being attached to an absorbent core through entanglement of fibers with each other where entangled fibers pass through the scrim member openings.

As shown in Figs. 1 and 2, Ouellette et al. disclose a laminate structure 20 comprising a first fabric layer 22 and an open cell mesh 24. The open cell mesh 24 has a plurality of first strands 26 and a plurality of second strands 28 (misabeled 29 in Figs. 1 and 2) intersecting the first strands at nodes 30 to form a net-like structure. The first strands 26 are used to bond the mesh 24 to the first fabric layer 22, and the second strands 28 are used to render the laminate structure 20 elastic along the direction of second strands. More specifically and as shown in Fig. 2a, the first strands are softened so that fibers 43 of the first fabric layer 22 are encapsulated by a portion of the first strands. None of the fibers 43 of the first fabric layer 22 extend through the openings in the mesh 24. Accordingly, none of the fibers 43 of the first fabric layer 22 are entangled with each other where

entangled fibers pass through the openings the mesh 24. Indeed, the fibers do not even pass through the mesh 24 openings.

As a result, Ouellette et al. fails to teach or suggest an absorbent article including a scrim member attached to an absorbent core through entanglement of fibers with each other where entangled fibers pass through openings in the scrim member as recited in amended claim 31.

May et al. disclose an elastic laminate TEL with different zones of tension across its width. As shown in Fig. 1, the elastic laminate TEL includes an elastic nonwoven layer 6 having at least one low tension zone 10 and high tension zone 14. The low tension zone 10 has a plurality of elastomeric first filaments 12, and the high tension zone 14 has a plurality of elastomeric second filaments 16. The first and second filaments 12, 16 can be "bonded" to facing materials 18, 20 using adhesive, thermobonding, ultrasonic bonding, stitching and the like. See paragraph [0053] of May et al. There is no teaching or suggestion that the fibers of the facing materials 18, 20 pass through the nonwoven layer 6 and are entangle with other fibers of the facing materials.

Thus, May et al. also fail to teach or suggest an absorbent article including a scrim member being attached to an absorbent core through entanglement of fibers with each other where entangled fibers pass through openings in the scrim member as recited in amended claim 31.

Since both Ouellette et al. and May et al. fail to teach or suggest an absorbent article including a scrim member being attached to an absorbent core through entanglement of fibers with each other where entangled fibers pass through openings in the scrim member as recited in amended claim 31, a combination of these references likewise fails to disclose or suggest such a feature. Accordingly, amended claim 31 is submitted to be

patentable over the references of record including Ouellette et al. and May et al.

For at least these reasons, claim 31 is submitted to be nonobvious and patentable over the references of record. Claims 3-6, 8, 15, 16, and 27-30 depend either directly or indirectly from claim 31 and are submitted to be patentable over the references of record for at least the same reasons as claim 31.

Claim 32

Claim 32 is directed to an absorbent article for absorbing body fluids comprising an absorbent core being at least partially made of fibers and constructed and arranged for receiving and holding such fluids and including a reinforcing scrim member intimately associated with the absorbent core to maintain its structural integrity in use, said scrim member comprising a network of machine direction (MD) strands extending in a machine direction, and cross direction (CD) strands extending in a cross direction, at least some of said MD strands and CD strands crossing over each other and being interconnected, said MD strands being selected and formed to provide a predetermined stiffness and strength in supporting said absorbent core in the machine direction, and said CD strands being selected and formed with at least one characteristic difference from said MD strands to provide a stiffness of the absorbent core in the cross direction that is less than said stiffness of the absorbent core in the machine direction, wherein said MD strands each have a strand diameter, and wherein said CD strands each have as a characteristic difference a strand diameter less than said MD strand diameter, the scrim member being attached to the absorbent core through at least one of: entanglement of the fibers with the scrim member; entanglement of fibers with other fibers entangled with the

scrim member; and entanglement of fibers with each other where at least one of the entangled fibers passes through the scrim member.

Claim 32 is submitted to be nonobvious in view of and patentable over the references of record, and in particular Ouellette et al. in view of May et al., in that whether considered alone or in combination, the references fail to show or suggest the combination of features recited in claim 32 and in particular an absorbent article including a scrim attached to an absorbent core through at least one of: entanglement of fibers with the scrim member; entanglement of fibers with other fibers entangled with the scrim member; and entanglement of fibers with each other where at least one of the entangled fibers passes through the scrim member.

As mentioned above with respect to claim 31, Ouellette et al. disclose a laminate structure 20 comprising a first fabric layer 22 and an open cell mesh 24. The open cell mesh 24 has a plurality of first strands 26 that are "integrally bonded" with the mesh 24 to the first fabric layer 22, and a plurality of second strands 28 used to render the laminate structure 20 elastic along the direction of second strands. More specifically, Ouellette et al. expressly teaches at column 5, lines 14-29 that the term "integrally bonded" means that the first strands 26, through application of pressure and/or heat, "penetrate into and bond with" the fibers 43 of the first fabric layer 22. This may be by the first strands 26 encapsulating, encircling or engulfing the fibers 43 of the fabric layer and/or by polymerizing, fusing or chemically reacting the first strands 26 with the fibers 43 of the first fabric layer 22 as illustrated in Fig. 2a. Column 5, lines 24-29.

This is not a teaching, nor even a suggestion, by Ouellette et al. that fibers 43 of the fabric layer 22 are "entangled"

with the strands 26 of the mesh 24. The term "entangled" means to make tangled; ensnarl; intertwine. See, e.g., <http://dictionary.reference.com/browse/entangle>>. The present application clearly uses the term "entangled" in this manner. See, e.g., paragraph [0061]. Moreover, the present application specifically contrasts the recited entanglement from the type of integral bonding taught by Ouellette et al. See paragraph [0061], page 20, last sentence. Thus, the "integral bonding" taught by Ouellette et al. is not entanglement as recited in claim 32, nor does it even suggest such entanglement.

As a result, Ouellette et al. fails to teach or suggest an absorbent article including a scrim member attached to an absorbent core through at least one of: entanglement of fibers with the scrim member; entanglement of fibers with other fibers entangled with the scrim member; and entanglement of fibers with each other where at least one of the entangled fibers passes through the scrim member as recited in claim 32.

May et al. disclose an elastic laminate TEL with a low tension zone 10 with a plurality of elastomeric first filaments 12, and a high tension zone 14 with a plurality of elastomeric second filaments 16. The first and second filaments 12, 16 can be bonded to facing materials 18, 20 using adhesive, thermobonding, ultrasonic bonding, stitching and the like. See paragraph [0053] of May et al.

Like Ouellette et al., May et al. fail to teach or suggest an absorbent article including a scrim member attached to an absorbent core through at least one of: entanglement of fibers with the scrim member; entanglement of fibers with other fibers entangled with the scrim member; and entanglement of fibers with each other where at least one of the entangled fibers passes through the scrim member as recited in claim 32. Rather, May et

al. also teach bonding and make no suggestion of the entanglement recited in claim 32.

Since both Ouellette et al. and May et al. fail to teach or suggest an absorbent article including a scrim member attached to an absorbent core through at least one of: entanglement of fibers with the scrim member; entanglement of fibers with other fibers entangled with the scrim member; and entanglement of fibers with each other where at least one of the entangled fibers passes through the scrim member as recited in claim 32, a combination of these references likewise fails to disclose or suggest such a feature. Accordingly, for at least these reasons claim 32 is submitted to be patentable over the references of record including Ouellette et al. and May et al.

Claims 10-13 depend either directly or indirectly from claim 32 and are submitted to be patentable over the references of record for at least the same reasons as claim 32.

Claim 33

Claim 33 is directed to an absorbent article for absorbing body fluids comprising an absorbent core being at least partially made of fibers and constructed and arranged for receiving and holding such fluids and including a reinforcing scrim member intimately associated with the absorbent core to maintain its structural integrity in use, said scrim member comprising a network of machine direction (MD) strands extending in a machine direction, and cross direction (CD) strands extending in a cross direction, at least some of said MD strands and CD strands crossing over each other and being interconnected, said MD strands being selected and formed to provide a predetermined stiffness and strength in supporting said absorbent core in the machine direction, and said CD strands being selected and formed with at least one

characteristic difference from said MD strands to provide a stiffness of the absorbent core in the cross direction that is less than said stiffness of the absorbent core in the machine direction, wherein both of said MD strands and said CD strands are round in cross-section, the CD strands being smaller in cross-section than the MD strands, the scrim member being attached to the absorbent core through at least one of: entanglement of the fibers with the scrim member; entanglement of fibers with other fibers entangled with the scrim member; and entanglement of fibers with each other where at least one of the entangled fibers passes through the scrim member.

Claim 33 is submitted to be nonobvious and patentable over the references of record, and in particular Ouellette et al. in combination with May et al., for substantially the same reasons as set forth in connection with claim 32. That is, Ouellette et al. and May et al., whether considered in combination or alone, fail to teach or suggest an absorbent article including a scrim member being attached to an absorbent core through at least one of: entanglement of fibers with the scrim member; entanglement of fibers with other fibers entangled with the scrim member; and entanglement of fibers with each other where at least one of the entangled fibers passes through the scrim member.

Accordingly, claim 33 is submitted to be nonobvious in view of and patentable over the references of record.

Claim 34

Claim 34 is directed to an absorbent article for absorbing body fluids comprising an absorbent core being at least partially made of fibers and constructed and arranged for receiving and holding such fluids and including a reinforcing scrim member intimately associated with the absorbent core to maintain its structural integrity in use, said scrim member

comprising a network of machine direction (MD) strands extending in a machine direction, and cross direction (CD) strands extending in a cross direction, at least some of said MD strands and CD strands crossing over each other and being interconnected, said MD strands being selected and formed to provide a predetermined stiffness and strength in supporting said absorbent core in the machine direction, and said CD strands being selected and formed with at least one characteristic difference from said MD strands to provide a stiffness of the absorbent core in the cross direction that is less than said stiffness of the absorbent core in the machine direction, wherein the network of MD strands and CD strands is formed with at least some of the CD strands being continuous and having weakened points along their lengths to enhance buckling, the scrim member being attached to the absorbent core through at least one of: entanglement of the fibers with the scrim member; entanglement of fibers with other fibers entangled with the scrim member; and entanglement of fibers with each other where at least one of the entangled fibers passes through the scrim member.

Claim 34 is submitted to be patentable over the references of record, and in particular Ouellette et al. in view of U.S. Patent No. 5,622,581 (Ducker et al.), in that whether considered alone or in combination, the references fail to show or suggest an absorbent article including a scrim member being attached to an absorbent core through at least one of: entanglement of fibers with the scrim member; entanglement of fibers with other fibers entangled with the scrim member; and entanglement of fibers with each other where at least one of the entangled fibers passes through the scrim member.

As discussed in detail above with respect to claim 32, Ouellette et al. fail to show or suggest an absorbent article

including a scrim member being attached to an absorbent core through at least one of: entanglement of fibers with the scrim member; entanglement of fibers with other fibers entangled with the scrim member; and entanglement of fibers with each other where at least one of the entangled fibers passes through the scrim member.

Ducker et al. also fail to teach or suggest this feature. As shown in Figs. 1 and 2, Ducker et al. disclose a method of making absorbent articles (e.g., a pair of training pants) wherein elastic strands 12 are adhered using adhesive patches 2a, 2b, 2c between an outer non-woven fabric 14 and a film barrier 13. The elastic strands 12 are de-elasticized along a portion of their length so that they do not apply tension to the crotch region of the final garment. Thus, Ducker et al. fails to teach or suggest an absorbent article including a scrim member being attached to an absorbent core through at least one of: entanglement of fibers with the scrim member; entanglement of fibers with other fibers entangled with the scrim member; and entanglement of fibers with each other where at least one of the entangled fibers passes through the scrim member

Since both Ouellette et al. and Ducker et al. fail to teach or suggest an absorbent article including a scrim member being attached to an absorbent core through at least one of: entanglement of fibers with the scrim member; entanglement of fibers with other fibers entangled with the scrim member; and entanglement of fibers with each other where at least one of the entangled fibers passes through the scrim member, a combination of these references likewise fails to disclose or suggest such features. For at least these reasons, claim 34 is submitted to be nonobvious and patentable over the references of record.

Claim 36

Claim 36 is directed to an absorbent article for absorbing body fluids comprising an absorbent core being at least partially made of fibers and constructed and arranged for receiving and holding such fluids and including a reinforcing scrim member intimately associated with the absorbent core to maintain its structural integrity in use, said scrim member comprising a network of machine direction (MD) strands extending in a machine direction, and cross direction (CD) strands extending in a cross direction, at least some of said MD strands and CD strands crossing over each other and being interconnected, said MD strands being selected and formed to provide a predetermined stiffness and strength in supporting said absorbent core in the machine direction, and said CD strands being selected and formed with at least one characteristic difference from said MD strands to provide a stiffness of the absorbent core in the cross direction that is less than said stiffness of the absorbent core in the machine direction, wherein the CD strand is corrugated and forms peaks and valleys along the cross direction thereof, said MD strands being arranged to engage the CD strands across the peaks and valleys thereof, the scrim member being attached to the absorbent core through at least one of: entanglement of the fibers with the scrim member; entanglement of fibers with other fibers entangled with the scrim member; and entanglement of fibers with each other where at least one of the entangled fibers passes through the scrim member.

Claim 36 is submitted to be nonobvious and patentable over the references of record, and in particular Ouellette et al. in view of U.S. Patent No. 4,107,371 (Dean), in that whether considered alone or in combination, the references fail to show or suggest an absorbent article including a scrim member being

attached to an absorbent core through at least one of:
entanglement of fibers with the scrim member; entanglement of
fibers with other fibers entangled with the scrim member; and
entanglement of fibers with each other where at least one of the
entangled fibers passes through the scrim member.

Ouellette et al. do not teach or suggest an absorbent
article including a scrim member being attached to an absorbent
core through at least one of: entanglement of fibers with the
scrim member; entanglement of fibers with other fibers entangled
with the scrim member; and entanglement of fibers with each
other where at least one of the entangled fibers passes through
the scrim member as recited in claim 36. Applicants position
with respect to the Ouellette et al. lack of disclosure with
regard to this feature is set forth in detail above with respect
to claim 32.

Dean is directed to a woven fabric that is relatively stiff
in one direction and relatively flexible in another. Nowhere
does Dean mention an absorbent core being at least partially
made of fibers. As a result, Dean fails to teach or suggest an
absorbent article including a scrim member being attached to an
absorbent core through at least one of: entanglement of fibers
with the scrim member; entanglement of fibers with other fibers
entangled with the scrim member; and entanglement of fibers with
each other where at least one of the entangled fibers passes
through the scrim member as recited in claim 36.

Since Ouellette et al. and Dean fail to teach or suggest
the same features of claim 36, a combination of the references
must also fail to teach or suggest all of the features of claim
36. Thus, claim 36 is submitted to be nonobvious and patentable
over the references of record.

Claim 37

Claim 37 is directed to an absorbent article for absorbing body fluids comprising an absorbent core being at least partially made of fibers and constructed and arranged for receiving and holding such fluids and including a reinforcing scrim member intimately associated with the absorbent core to maintain its structural integrity in use, said scrim member comprising a network of machine direction (MD) strands extending in a machine direction, and cross direction (CD) strands extending in a cross direction, at least some of said MD strands and CD strands crossing over each other and being interconnected, said MD strands being selected and formed to provide a predetermined stiffness and strength in supporting said absorbent core in the machine direction, and said CD strands being selected and formed with at least one characteristic difference from said MD strands to provide a stiffness of the absorbent core in the cross direction that is less than said stiffness of the absorbent core in the machine direction, wherein the CD strands are woven under and over the MD strands, the scrim member being attached to the absorbent core through at least one of: entanglement of the fibers with the scrim member; entanglement of fibers with other fibers entangled with the scrim member; and entanglement of fibers with each other where at least one of the entangled fibers passes through the scrim member.

Claim 37 is submitted to be nonobvious and patentable over the references of record, and in particular Ouellette et al. in view of Dean for substantially the same reasons set forth above with respect to claim 36. That is, whether considered alone or in combination, Ouellette et al. and Dean fail to show or suggest an absorbent article including a scrim member being attached to an absorbent core through at least one of:

entanglement of fibers with the scrim member; entanglement of fibers with other fibers entangled with the scrim member; and entanglement of fibers with each other where at least one of the entangled fibers passes through the scrim member. As a result, claim 37 is submitted to be nonobvious and patentable over the references of record.

Claims 38

New claim 38 depends from claim 31 and recites that the scrim member is attached to the absorbent core through entanglement of at least some fibers of the absorbent core with the CD strands of the scrim member and at least some other fibers of the absorbent core with the MD strands of the scrim member. As mentioned above with respect to claim 31, Ouellette et al. disclose a laminate structure 20 comprising a first fabric layer 22 and an open cell mesh 24. First strands of the mesh 24 are softened so that fibers 43 of the first fabric layer 22 are encapsulated by portions of the first strands. However, second strands 28 of the mesh 24 are not directly attached to the first fabric layer 22. Instead, the second strands 28 are secured to the first fabric layer 22 via the first strands 26. There is clearly no securement of the fibers 43 of the first fabric layer 22 with the second strands 28 of the mesh 24.

As a result, Ouellette et al. fail to teach or suggest an absorbent article including a scrim member that is attached to an absorbent core through entanglement of at least some fibers of the absorbent core with CD strands of the scrim member and at least some other fibers of the absorbent core with MD strands of the scrim member as recited in claim 38.

May et al. disclose an elastic laminate TEL with different zones of tension across its width. As shown in Fig. 1, the elastic laminate TEL includes an elastic nonwoven layer 6 having

at least one low tension zone 10 and high tension zone 14. The low tension zone 10 has plurality of elastomeric first filaments 12, and the high tension zone 14 has a plurality of elastomeric second filaments 16. The first and second filaments 12, 16 can be bonded to facing materials 18, 20 using adhesive, thermobonding, ultrasonic bonding, stitching and the like. See paragraph [0053] of May et al.

Thus, May et al. also fail to teach or suggest a scrim member that is attached to an absorbent core through entanglement of at least some fibers of the absorbent core with CD strands of the scrim member and at least some other fibers of the absorbent core with MD strands of the scrim member as recited in claim 38.

Since both Ouellette et al. and May et al. fail to teach or suggest a scrim member that is attached to an absorbent core through entanglement of at least some fibers of the absorbent core with CD strands of the scrim member and at least some other fibers of the absorbent core with MD strands of the scrim member as recited in claim 38, a combination of these references likewise fails to disclose or suggest such a feature. Accordingly, new claim 38 is submitted to be patentable over the references of record including Ouellette et al. and May et al.

CONCLUSION

In view of the foregoing, favorable consideration and allowance of claims 3-6, 8, 10-13, 15, 16, 18-20, 22, 23, and 27-38 is respectfully requested.

Although applicants believe that no fee is due, the Commissioner is hereby authorized to charge any required fees to Deposit Account No. 19-1345 in the name of Senniger Powers.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "R. L. Bridge". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Richard L. Bridge, Reg. No. 40,529
SENNIGER POWERS
One Metropolitan Square, 16th Floor
St. Louis, Missouri 63102
(314) 231-5400

RLB/PEB/bcw